

**BIERMANS et al**  
**Serial No. 10/541,516**  
November 20, 2007

**AMENDMENT TO THE DRAWINGS**

The attached replacement drawing sheet includes changes to Fig. 1. The replacement sheet, which includes Fig. 1, replaces the original drawing sheet including Fig. 1.

Attachment: Replacement Sheet – Fig. 1

**REMARKS**

Favorable reconsideration and allowance of this application are requested.

Applicants note with appreciation the Examiner's indication of allowable subject matter being defined by claims 3-7 subject to removal of informalities therefrom and presentation in independent form. As will be discussed in greater detail below, however, applicants suggest that claims 1-2 as presented above are likewise in condition for allowance.

**1. Discussion of Amendments**

By way of the amendment instructions above, appropriate specification headings have been inserted in response to the disclosure objection in paragraph 2 on page 2 of the Official Action.

A replacement drawing sheet is being submitted so as to identify Fig. 1 as "Prior Art."

The antecedent basis issue which prompted rejection of claims 6-7 under 35 USC §112, second paragraph has been corrected by the amendment to claim 6.

Claim 1 has been amended so as to clarify that the stream consisting substantially of gaseous NH<sub>3</sub> being formed in the NH<sub>3</sub> separation device is fed from "elsewhere in the process." Support for such language can be found claim 3, for example, wherein a stream containing ammonia, carbon dioxide and water out of a desorption device is treated in a condensation step, and by the discussion of stream 234 in Fig. 2.

Therefore, claims 1-7 remain pending in this application for which favorable reconsideration and allowance are solicited.

## **2. Submission of Supplemental Declarations**

Attached are supplemental Declarations by the Inventors which are being filed so as to address the informalities noted in paragraph 1 on page 2 of the Official Action. Acknowledgement of receipt and sufficiency of such supplemental Declarations will be appreciated.

## **3. Response to Rejections under 35 USC §102(b)**

### **A. Rejection based on EP 0005292**

Claims 1-2 attracted a rejection under 35 USC §102(b) as allegedly anticipated by EP '292. Applicants suggest that claim 1 presently pending herein is not anticipated by such publication.

In this regard, pending independent claim 1 of the present application is directed to the separation of a mixture containing ammonia, carbon dioxide and water in an ammonia separation device. In the ammonia separation device, a stream of almost pure gaseous ammonia is formed, which is separated and discharged. Apart from the separation in the ammonia separation device, a condensation step is carried out on:

1. the gaseous ammonia stream that leaves the ammonia separation device, or
2. one or more stream(s) containing ammonia, carbon dioxide and water that are supplied to the ammonia separation device *from elsewhere in the process*.

According to the EP '292 publication, a gas stream (4) coming from the top of the NH<sub>3</sub>-erctification column is fed to a condenser (5). Significantly, the gas stream (4) of EP '292 does *not* contain carbon dioxide, but only ammonia, water and inert gases. This is shown in EP '292 at page 7, lines 20-23 and by the description in the present application at page 1, lines 16-18.

According to EP '292, no condensation of carbon dioxide occurs in the condenser (5), but only condensation of gaseous ammonia to liquid ammonia.

Therefore, claims 1-2 cannot be anticipated by EP '292. Withdrawal of the rejection advanced under 35 USC §102(b) based on such reference is therefore in order.

**B. Rejection based on Kurprit et al (USP 3,191,916)**

Applicants also suggest that the present invention as defined by claims 1-2 is not anticipated under 35 USC §102(b) from Kurprit et al.

In this regard, according to Kurprit et al, vessel 32 is the ammonia separation device. In vessel 32, a mixture containing ammonia, carbon dioxide and water (29, 31) is treated, whereby a stream of almost pure gaseous ammonia 95) is formed. The stream 50 is cooled in cooler 51 to condense the ammonia. The traces of carbon dioxide that are present in this stream will not condense (not be converted to the liquid phase) and leave cooler 51 together with the inert gases via 54. Therefore, in the process of Kurprit et al, option 1 noted above does not occur.

According to Kurprit et al, two recycle loops (41 +42 and 70+44) are present wherein streams containing ammonia, carbon dioxide and water leave the ammonia separation device, are cooled and recycled to (supplied to) the ammonia separation device. During cooling, part of the gaseous carbon dioxide present in these streams will be absorbed in (coveted to) the liquid phase present therein. Because these streams are not only leaving the ammonia separation device but also are fed to the ammonia separation device, these streams cannot be considered to be the same as option 2 above – i.e., since they are not supplied to the ammonia separation device from elsewhere in the process.

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Therefore, claims 1-2 cannot be anticipated by Kurprit et al. Withdrawal of the rejection advanced under 35 USC §102(b) based on such reference is therefore in order.

#### **4. Conclusion**

All issues advanced in the Official Action dated August 29, 2007 have been addressed above. Therefore, early receipt of the Official Allowance Notice is solicited.

#### **5. Fee Authorization**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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